

BARNSLEY  
RURAL SANITARY DISTRICT.

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REPORT  
OF THE  
MEDICAL OFFICER OF HEALTH

(F. J. SADLER, Esq., M.A., M.B., D.P.H., Oxon.)

FOR THE  
Year ending December 31st, 1904.



Barnsley:

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To

## The Barnsley Rural District Council.

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GENTLEMEN,

Meteorological. **T**HE year 1904 approximated rather closely to the average, except in the matter of rainfall. This amounted to 23.64 inches for the year, or 3 inches below the average of the preceding 36 years. The number of days on which  $\frac{1}{100}$  of an inch of rain (or snow) fell was 192, or 5 above the average, while only 3.77 inches fell in the last 4 months of the year, September and October being exceptionally dry. Although there was no long spell of rainless weather there was no rain "to do any good," excepting the snow storm on November 21st, and in rural districts dependent on wells for their water supply water was beginning to be scarce in December.

July was distinctly hot, the thermometer reaching 70° F. on 21 days in that month, while January, February, March, November, and December had just about the average number of days of frost.

The 4 foot earth thermometer registered the critical temperature of 56° F. on 58 days, of which 19 were in July, 25 in August, and 14 in September.

The number of warm days on which the thermometer registered 50° F., or more, was 234, or about 10 over the average.

1904 was, therefore, about an average year, of which the most striking features were the deficient rainfall of the last four months, and a curious alternation of warm and cold spells in December (1st—7th warm, 8th—12th cold, 13th—18th warm, 19th—27th cold, 28th—31st warm), which resulted in a serious prevalence of Influenza, and were very trying to old people and infants.

Statistics.

The population of your district in the middle of 1904 I estimate to have been 4,400 persons, distributed as follows:—Carlton 2,400, Woolley 1,030, Notton 280, Stainborough 490, and Billingley 200.

149 Births and 66 Deaths were registered in the district during the year, and 4 further deaths occurred in public institutions outside the district, but among persons belonging to the district.

The total number of Deaths among persons belonging to the District was 70.

The Birth and Death rates for 1904 are, therefore, 33.86 Births and 15.45 Deaths per 1,000 persons living in the Barnsley Rural District.

Supplementary to Table II.\* I have prepared once more a table showing the calculated Birth Rate, Death Rate, and Infant Mortality for each Township separately, and for the exclusively rural portion of your District; and also for purposes of comparison the Registrar General's figures for England and Wales and the sub-divisions thereof.

With such small figures to deal with it is not possible to lay any great stress on them, still less would it be wise to try to make any serious deductions from them. Once more, however, it is satisfactory to note that although Carlton, with more than half the population, approximates to Urban conditions, the Death Rate of the whole district only exceeds by a small fraction that for Rural England and Wales, while the birth rate is nearly 6 per 1,000 more than that for England and Wales as a whole.

As this high birth rate holds good for the Barnsley Borough as well as for your district, and has done so for some years past, I can only conclude that the evils, so deplored by alarmist bishops, have not as yet tainted this part of the country much.

Of the townships comprised in your district Stainbro' has the highest death rate (24·48), and Billingley—after two years of prominence—the lowest (10).

Of the deaths 18 were from diseases of the respiratory organs and 19 from infectious diseases. Of these last 4 were due to Measles, 1 to Scarlet Fever, 3 to Whooping Cough, 4 to Diphtheria or Membranous Croup, 5 to Diarrhœa, 1 to Puerperal Fever, and 1 to Influenza. Distributed among the various townships these deaths occurred as follows:—Carlton had 1 death from Measles, 1 from Diphtheria, 1 from Puerperal Fever, and 3 from Diarrhœa. Woolley had 3 deaths from Measles, 1 from Scarlet Fever, 1 from Whooping Cough, 1 from Diarrhœa, and 1 from Influenza. Notton happily had no deaths from Infectious Disease. Stainbro' had 2 deaths from Whooping Cough and 3 from Diphtheria, while Billingley had 1 death from Diarrhœa.

The Zymotic Death Rate for 1904 is 3·86, which is just double that for England and Wales as a whole.

#### Infectious Diseases.

During 1904 there were 42 cases of those Infectious Diseases which come under the Notification Act. Forty-one of these were notified in the usual course by medical practitioners, and the other case was a child who died quite suddenly without medical attendance, who was found at the Coroner's Inquest to have died of Membranous Croup.

\*N.B.—Table II. is necessarily incomplete. Up to and including the year 1900 Births in Carlton, Woolley and Notton, and also in Cudworth (before that Township acquired Urban powers in March, 1900) were returned by the Registrar monthly *en masse*, with no distinction made. No separate figures therefore are available before 1901 for the 6 columns of the above Townships.

Table I. is incomplete for similar reasons, no separate figures being available for the District as at present constituted whereby the blank columns might be filled in.



Of these 42 cases 6 were cases of Small-pox, 5 at Carlton and 1 at an out-lying farm in Woolley; 26 were cases of Scarlet Fever, 11 from Carlton, 11 from Woolley Colliery, 1 from Notton, 1 from Stainbrough, and 2 from Billingley; 6 were cases of Diphtheria or Membranous Croup, 3 from Stainbrough, and 1 each from Carlton, Woolley, and Notton; 1 case of Enteric Fever and 1 of Puerperal Fever were notified at Carlton; and 2 cases of Erysipelas were notified at Carlton and Stainbrough respectively.

Each case was visited as soon as possible after the receipt of the notification, and the sanitary condition of the premises was investigated. The milk and water supply and the amount of bedroom accommodation were enquired into, and the parents or friends of patients suffering from Scarlet Fever, Typhoid Fever, or Diphtheria, were urged to take advantage of the Kendray Hospital, while all the cases of Small-pox were isolated at the Lund Wood Small-pox Hospital. In cases of Scarlet Fever, Diphtheria, and Small-pox, any School attended by children from the infected house was warned of the danger of infection, and when the patient had been removed to Hospital, or, if kept at home, had sufficiently recovered, the house was disinfected by a spray of formalin solution, while any clothes or bedding, when necessary, were disinfected by steam in a Thresh Steam Disinfector. Special precautions taken to prevent the spread of Small-pox and Diphtheria will be presently described.

Apart from Small-pox 18 cases of Scarlet Fever, 2 cases of Diphtheria, and the Typhoid Fever case were isolated at the Kendray Hospital.

Small-pox.

There were three distinct importations of Small-pox into the district during the year.

The first case began to be ill in Barnsley on June 2nd, and was sent home to Carlton on June 5th, and was notified and isolated on the following day. This case produced no secondary cases. The second case began to be ill at Dewsbury on July 13th, travelled from Dewsbury to Royston on July 15th, and from Royston to Carlton on July 16th. This case was notified and isolated on July 18th, and produced no secondary cases. The third case was a man who went round in the wake of a threshing machine. He was probably infected at Barnsley, and developed the disease while at a farm at Carlton. He lay ill at the farm for 10 days before a doctor was called in, and was notified and isolated on October 15th. As the farm supplied milk to a neighbouring township the milch cows were at once sent off to a farm four miles distant, while the farm buildings were disinfected. The cows were kept at this farm till October 28th. The three secondary cases that followed are instructive, because they were all in susceptible people who were re-vaccinated too late to

save them from attack ; they were all mild cases, because the victims had been vaccinated early enough to modify the disease, and it was safe to discharge these secondary cases from the Hospital some weeks before the unprotected primary case was fit to be discharged.

As one of the local Guardians of the Poor has recently stated publicly that he did not see much use in re-vaccination if people got Small-pox after such re-vaccination, it may be well to record the exact dates in these cases.

Like all other infectious diseases, Small-pox has an incubation period, or time between the entry of the infection into the body and the appearance of the first symptom. The length of this period is nearly always twelve days, and for all practical purposes it is true to say that re-vaccination in the first three of these twelve days will prevent the appearance of the disease, that re-vaccination in the second three days will *not* prevent the attack, but certainly will modify the disease, while during the last six days of the incubation period re-vaccination may or may not modify the disease as Providence may determine.

Now the three secondary cases were exposed to infection for ten days before they were all re-vaccinated on October 16th. One of them developed the disease on October 23rd, and two of them on October 24th. It is a mere matter of subtraction to understand that the former was re-vaccinated two days too late, and the latter one day too late, and it is a matter of fact that the former had a less modified attack than the latter. All the cases had been vaccinated in infancy, and subsequently lost the protection of that vaccination.

One of these three secondary cases had gone with the cows to the above mentioned farm, which happens to be on the edge of the Woolley Township, and, therefore, the case appears in the tables as from Woolley, though it is really a Carlton case. When these secondary cases occurred, as both sets of farm buildings were infected, I advised that the milk should not be sold for a period of fourteen days, and at the end of that time, as no further case appeared, the sale of milk was allowed to be resumed.

Special care was taken to disinfect everything in the invaded houses on the plan adopted in Barnsley in 1903. All the bedding and spare clothes are taken to the disinfector in the morning. In their absence the bedrooms are sprayed with formalin solution, the occupants of the house remaining downstairs for the day. The bedding, etc., is returned in the evening, and the occupants, after washing in solution of disinfectant fluid, then change into disinfected clothes, or go to bed, and the clothes they have been wearing are taken to the disinfector, while the living rooms are sprayed; the occupants, meanwhile, staying

upstairs. The clothing is returned in time for the next morning, and the whole house is sprayed a second time. All contacts are strongly pressed to submit to re-vaccination, but I suppose that until a Government arises that shall be strong enough and wise enough to pass a Re-Vaccination Bill, the trouble and expense of fighting Small-pox will continue to afflict Sanitary Authorities.

Scarlet Fever.

At Woolley  
Colliery.

As in the Barnsley Union generally, so in your district, Scarlet Fever has been more prevalent this year than last. Nine cases were notified at Woolley Colliery between February 3rd and March 5th, of which all except the first and last were removed to the Kendray Hospital. The first case remained at home, a possible source of infection for the locality. The last case I myself discovered desquamating, as the result of a house to house inspection. From March 5th to April 2nd I advised that the Woolley Colliery School should be closed on account of the prevalence of Scarlet Fever and Whooping Cough, and there was no further case of Scarlet Fever at Woolley Colliery till April 20th. This case was removed to the Kendray Hospital, and no other notification of Scarlet Fever was received till October 8th. Although there was no room at the Kendray Hospital for this last case, and it had, therefore, to be isolated at home, it gave rise to no secondary cases, and there has been no Scarlet Fever at Woolley Colliery since. There were four cases at Carlton between March 24th and April 19th. All of these were isolated at the Kendray Hospital. Then there was a single case on the extreme edge of the Carlton Township (Craik's Pit) on July 1st. Then three cases in August (6th—19th) in Carlton Village, and finally three more cases, September 15th—28th. The two cases at Billingley were children in the same house, who had clearly been infected at the same time, probably at school. Lastly the case in Notton and the case in Stainbro' were in isolated parts of the townships.

At Carlton.

At Billingley, &c.

Diphtheria.

The first two cases of Diphtheria, on 18th February and 10th September, were, in all probability, importations from Royston. The origin of the third case, on October 18th, at Woolley Colliery, I have not been able to ascertain. The remaining three cases at Stainbro', in December, have a tragic interest, for all three were fatal. The first case was notified as Membranous Croup the day the child died, the nature of the illness clearly not having been recognised till the child was desperately ill. Meanwhile, the other children in the house had been attending school, and the second case died quite suddenly on December 21st, while the third case died before notification on December 24th. The original infection seems to have come from Silkstone Common. As these three cases occurred in different parts of the parish, situate roughly at the angles of an equilateral triangle,



whose side was  $1\frac{1}{4}$  miles, and as there was no communication between the houses, it became clear that the infection was in each case derived from the school. I, therefore, advised the closure of the school for four weeks, or for two weeks after the Christmas Holidays, as at the end of such a period it was likely that any previous Diphtheria cases would have become harmless. You further agreed to pay for any Diphtheria anti-toxin used for preventive inoculation, while the anti-toxin treatment is available at the Kendray Hospital for any actual sufferer. The School was carefully disinfected, special attention being paid to the disinfection or destruction of slates, slate-pencils, and slate-sponges. In the result I may say that the disease was stamped out by these measures, for although one further case was notified in February, 1905, no Diphtheria bacilli were found in this child's throat a fortnight after the onset.

Enteric  
Fever, etc.

The single cases of Enteric Fever and Puerperal Fever at Carlton, and the cases of Erysipelas at Carlton and Stainbro', are of no special interest from a sanitary point of view, and, therefore, I make no comment.

Other  
Infectious  
Diseases.

Of the Infectious Diseases which do not come under the Notification Act, Diarrhœa caused 5 deaths (3 in Carlton, 1 in Woolley, and 1 Billingley), Measles caused 4 deaths (1 in Carlton and 3 in Woolley), and Whooping Cough caused 3 deaths (1 in Woolley and 2 in Stainbro').

Diarrhœa.

Although the year 1904 had a much warmer summer than 1903, and, therefore, was more favourable to Epidemic Diarrhœa, the Rural District escaped with the same number of deaths from this disease as in 1903. Four of the deaths occurred at Carlton or Woolley Colliery, where the conditions approximate nearly to those of an Urban District.

Whooping Cough  
and Measles.

In consequence of the prevalence of these diseases it was necessary to close the schools at Woolley and Stainbro' during the year.

The prevalence of Whooping Cough, as well as the probability of overlooked cases of Scarlet Fever, at Woolley Colliery, made it advisable to close the Woolley Colliery School on March 5th for four weeks. In the result Scarlet Fever stopped for a time, and the Whooping Cough abated. But there was an increase of Whooping Cough and an epidemic of Measles at Woolley Colliery towards the end of May, and the school was closed once more for the fortnight June 1—15, which, with the Whitsuntide Holidays, made a period of four weeks. Unfortunately it was necessary to extend the closure twice for further periods of 28 and 14 days, so that it was August 12th before it was possible to re-open the school.



At Stainbro' Whooping Cough was very prevalent in May, so the school was closed for a period of four weeks from May 9th, and here also it was necessary to extend the period of closure for a further period of 14 days, by the end of which time the epidemic had abated.

Water Supply.

The deficiency of the rainfall during the last four months of the year has once more made the supply of sufficient pure drinking water to Notton an urgent question. In December many of the inhabitants were sending for their drinking water to a roadside trough, whose water has already been pronounced dangerous for drinking purposes by the County Analyst. A scheme is now in hand which will, I hope, settle this question finally. In a small country village I do not think there is any hardship in having to go some distance for your drinking water, but the source of supply should be above suspicion when you have fetched it.

Annual Inspection.

The usual systematic inspections of the district were made during the year, and the results of this investigation and of the regular visits of your Sanitary Inspector have from time to time been reported to you at your monthly meetings.

Sewage Disposal.

The Scheme for the drainage of Railway Terrace, Carlton, has been completed during the year, and will be in working order so soon as the pump necessary to raise the sewage into the settling tanks has been provided.

Other Sanitary Work.

During the year 14 nuisances were reported of which 12 were abated and 2 remained in hand at the end of the year.

We find that the most efficacious way of getting nuisances abated is to make informal representations to the person responsible, so the above figures really only show the number of cases in which the formal procedure has been necessary.

The 4 slaughter-houses and 39 cowsheds in your district have all been inspected during the year. The slaughter-houses are in a satisfactory condition. The cowsheds have accommodation for 90 cows more than are kept.

One cow died of anthrax at Carlton in January, but there was no spread of the disease, the prescribed precautions having been taken for the proper disposal of the carcase.

One hundred and forty-five canal boats coming into the district from elsewhere have also been inspected and found to be clean and well-ventilated. The 145 boats were registered to accommodate 725 persons. They actually were occupied by 232 adults and 10 children. None of the children was of school age. No case of infectious disease was reported from any of these canal boats nor traced to them.

Three privy-ashpits were newly constructed during 1904, and 15 sink traps were renewed.

The scavenging done by the contractors at Carlton has been satisfactory during the year. In the other townships the night-soil is removed by farmers or owners, and except for one or two temporary difficulties has also been satisfactorily attended to.

Factories,  
Workshops, &c.

As there are no factories or workshops and no underground bakehouses in the district, the recent legislation on these subjects has not required any new measures to be taken by you.

Conclusion.

Considering the serious prevalence of Small-pox in South Yorkshire during 1904 I think that the Barnsley Rural District was fortunate in escaping with 3 importations and 6 cases.

That 7 out of 70 deaths should be due to Measles and Whooping Cough indicates the difficulty there is in impressing parents with the serious nature of these diseases if they are not treated with due respect.

On the whole, with our death-rate so nearly approximating to that for Rural England and Wales, we may consider 1904 to have been an average year.

I have the honour to be, gentlemen,

Your obedient servant,

F. J. SADLER, M.A., M.B., D.P.H. Oxon.

*Medical Officer of Health.*

BARNSELEY,

*March 4th, 1905.*



I. Institutions within the District receiving sick and infirm persons from outside the District.	II. Institutions outside the District receiving sick and infirm persons from the District.	III. Other Institutions, the deaths in which have been distributed among the several localities in the District.
NONE.	<ol style="list-style-type: none"> <li>1. Barnsley Union Workhouse Infirmary.</li> <li>2. Beckett Hospital, Barnsley.</li> <li>3. Kendray Hospital for Infectious Diseases, Ardsley.</li> <li>4. Lund Wood Hospital for Small-pox, Monk Bretton.</li> </ol>	NONE.

Deaths have occurred among persons from the District in 1, 2, and 3, of above.

Before 1900 Cudworth was included in this District and all the figures available before that year, but not appearing in this table, include the Cudworth statistics.



TABLE 2.

## Vital Statistics of Separate Localities in 1904 and previous years.

*Barnsley Rural District.*

Names of Localities.	CARLTON.				WOOLLEY.				NOTTON.				STAINBROUGH.				BILLINGLEY.			
	Population esti- mated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.
1894 ..	1,830		19	9	970		12	5	280		4	2	450	17	7	3	210	0	5	0
1895 ..	1,900		31	15	970		10	4	280		5	0	450	10	3	0	220	0	1	0
1896 ..	1,900		25	10	970		16	5	280		4	1	450	10	9	0	220	9	0	0
1897 ..	1,900		35	15	970		11	5	280		2	1	450	12	5	0	220	7	5	3
1898 ..	1,900		39	14	970		8	5	270		2	0	450	9	13	1	200	8	1	0
1899 ..	1,920		28	7	950		14	4	270		3	0	460	15	9	2	200	6	4	0
1900 ..	1,920		46	23	950		11	2	270		2	0	460	11	8	3	200	5	0	0
1901 ..	2,086	85	37	14	1,008	28	12	3	262	8	7	1	490	13	6	1	198	9	5	1
1902 ..	2,129	87	39	14	1,028	32	13	4	273	8	4	0	490	11	7	2	200	6	8	3
1903 ..	2,240	86	43	17	1,030	24	6	3	280	4	6	1	490	11	3	1	200	8	6	1
Averages of Years 1894 to 1903.	1972.5		34.2	13.8	981.6		11.3	4	274.5		3.9	0.6	464	11.9	7	1.3	206.8	5.8	3.5	0.8
1904 ..	2,400	87	36	12	1,030	30	14	2	280	8	6	2	490	15	12	2	200	9	2	2

TABLE 2A.

1904.	Annual Rates per 1,000 persons living.			Deaths of Children under 1 year per 1,000 births registered.
	Births.	Deaths.	Deaths from 7 chief Zymotic Diseases.	
England and Wales ...	27.9	16.2	1.94	146
76 Great Towns... ..	29.1	17.2	2.49	160
103 Smaller Towns ...	27.5	15.6	2.02	154
Rural England and Wales ...	26.8	15.3	1.28	125
Barnsley Rural District ...	33.86	15.45	3.86	134
The same without Carlton ...	31	17	6	129
Carlton ... ..	36.25	15	2.08	138
Woolley ... ..	29.12	13.59	5.82	66
Notton ... ..	28.57	21.42	nil.	250
Stainborough ... ..	30.61	24.48	10.20	133
Billingley ... ..	45	10	5	222

TABLE 3.

## Cases of Infectious Disease notified during the Year 1904.

*Barnsley Rural District.*

NOTIFIABLE DISEASE.	Cases notified in whole District.						Total Cases Notified in each Locality.				No. of Cases removed to Hospital from each Locality.						
	At all Ages.	At Ages—Years.					Carlton.	Woolley.	Notton.	Stainbrough.	Billingley.	Carlton.	Woolley.	Notton.	Stainbrough.	Billingley.	
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.											65 and upwards.
Small-pox ... ..	6		1	2	3		5	1				5	1				
Diphtheria ... ..	4	1		1			1	1	1	1		1		1			
Membranous croup ... ..	2		2			1	1			2							
Erysipelas ... ..	2				1		1			1							
Scarlet Fever ... ..	26	11	14		1		11	11	1	1	2	8	8			2	
Enteric Fever ... ..	1		1				1					1					
Puerperal Fever ... ..	1				1		1										
Totals ... ..	42	12	20	3	6	1	20	13	2	5	2	15	9	1		2	

Isolation Hospitals:—Kendray Hospital for Enteric Fever, Diphtheria and Scarlet Fever, in Ardsley.  
Lund Wood Hospital for Small-pox, in Monk Bretton.

**TABLE 4.**  
**Causes of, and Ages at, Death during Year 1904.**  
*Barnsley Rural District.*

CAUSES OF DEATH.	Deaths at the subjoined ages of "Residents" whether occurring in or beyond the District.						Deaths at all ages of "Residents" belonging to Localities, whether occurring in or beyond the district.					
	All Ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	Carlton.	Woolley.	Notton.	Stainbrough.	Billingley.
Measles ... ..	4	2	2	1				1	3			
Scarlet Fever... ..	1								1			
Whooping Cough ... ..	3		3						1		2	
Diphtheria and Membranous Croup	4			4				1	1		3	
Epidemic Influenza .. ..	1					1		1	1			
Diarrhoea ... ..	5	2	2	1				3	1			1
Puerperal Fever ... ..	1					1		1				
Phthisis (Pulmonary Tuberculosis)...	2					2		1	1		1	
Other tubercular diseases ... ..	1		1		1		1	1	1			
Cancer, malignant disease ... ..	2							1	1			
Bronchitis ... ..	4	1					3	1	1		2	
Pneumonia ... ..	3			1		2		2			1	
Other diseases of Respiratory Organs	9	3	6					6	2	1		
Premature Birth ... ..	4	4						3		1		
Heart diseases ... ..	4					1	3	4				
Accidents ... ..	2					2		2				
All other causes ... ..	20	8	2			7	3	10	2	4	3	1
All causes ... ..	70	20	16	7	1	15	10	36	14	6	12	2